

Patent claims

1. A method for producing information carriers in the form of cards, in particular credit cards, passes, identification cards, admittance cards etc., the laminating process comprising placing at least one card template which is to be sized, preferably a laminate consisting of a plurality of sized card layers, into a hollow mold and subjecting it to a simultaneous action of pressure and heat for a predetermined time, wherein, on the one hand, the material placed into the hollow mold is heated over at least one large area, as known per se by the use of heating plates, and wherein, on the other hand, in the peripheral, narrow, outer boundary region of the inserted material quantities of heat flowing off per se there are retained, blocked in, reflected and concentrated back onto the laminate template.

2. An apparatus (laminator) for producing sized information carriers in the form of cards, in particular credit cards, passes, identification cards, admittance cards etc., in which card layers placed into the hollow space of the laminator are laminated by the action of pressure and heat, wherein the cavity (7a), forming the hollow space, of the laminator (12) has a peripheral frame which consists of a material which is only slightly heat-conducting, if at all, reflects heat or concentrates heat back onto the inserted laminate, and whose internal dimensions correspond to the final dimensions of the card.

3 The apparatus as claimed in claim 2, wherein heating plates (2, 6) are arranged on both sides of the frame (7) forming, by its internal dimensions, the cavity (7a) for the laminating process.

4. The apparatus as claimed in claim 2 or 3, wherein one of the heating plates (lower heating plate 6) corresponds with its external dimensions to the internal dimensions of the frame (7) and can be inserted with a prestressing action into said frame, preferably together with associated cooling bodies (8), in order to produce the pressure required for the laminating process.

5. The apparatus as claimed in claim 4, wherein prestressing means (9) act on the cooling body (8) adjacent to the lower heating plate (6).

6. The apparatus as claimed in one of claims 2 to 5, wherein the upper heating plate (2) closes the cavity (7a), which is formed by the frame (7), in a lid-like manner by way of a boundary lip (2a) projecting over the frame dimensions.

7. The apparatus as claimed in one of claims 2 to 6, wherein between the heating plate (2), which closes the cavity (7a) in a lid-like manner, and the frame (7) an intrinsic relative movement is possible by way of further, pressure-producing means (10) which press the frame (7) and covering heating plate (2) firmly against one another.

8. The apparatus as claimed in one of claims 2 to 7, wherein in order to increase the specific contact pressure between the frame border edge and covering heating plate (2),

the frame (7) has a reduction in material in the transitional edge region.

9. The apparatus as claimed in claim 8, wherein the reduction in material is formed by a peripheral, outer annular recess (7b).

10. The apparatus as claimed in one of claims 2 to 9, wherein the frame (7) is pressed by its transitional boundary edge against the overlapping heating-plate lip (2a) by dedicated prestressing means (10).

11. The apparatus as claimed in claim 10, wherein the frame prestressing means (10) are supported on the cooling body (8) which is assigned to the lower heating plate (2) and subjects the latter to pressure.

add
A7